3. CYTOKINE REGULATION IN IMMUNE CELLS

Block Symposium
FRI. 2:00 PM—BCC ROOM 318-320
CHAIR: T.M. Aune
COCHAIR: M.T. Cantorna

2:00 Altered response of CD4+ T cells to TGF-β and IL-6 in the absence of the vitamin D receptor. S. Yu and M.T. Cantorna. Penn State Univ. (88.9)

2:15 Non-Coding RNA regulation of TNFα. K. Sullivan, L. Song, A. Bagashev and M. Fitzgerald. CHOP. (88.10)


2:45 DNMT3a mediates lineage-specific, de novo DNA methylation at the ifng promoter and contributes to ifng gene silencing in Th2, Th17 and Treg cells. R.M. Thomas, C.J. Gamper, J.D. Powell and A.D. Wells. The Children’s Hosp. of Philadelphia, Univ. of Pennsylvania and Johns Hopkins Univ. (88.15)

3:00 Lymphotoxin alpha gene polymorphism influences the cardiomypathy development in chagas’ disease patients. V. Rodrigues, C.W. Pisseti, R.F. Oliveira and D. Correia. Universidade Federal do Triângulo Mineiro, Brazil. (88.16)


3:30 Regulation of CD20 in rituximab-resistant cell lines (RRCL) and B-cell non-Hodgkin’s lymphomas (NHL). P. Tsai, B. Naveen, S. Olejniczak, F.J. Hernandez-Illazturri and M.S. Czuczma. Roswell Park Cancer Inst. (88.18)

3:45 Cartilage remodeling genes on murine chromosome 15 involved in sex-affected pathways controlling the effector phase of arthritis. V. Adarichev and E. Kudryavtseva. Albert Einstein Col. of Med. (88.19)

4. EFFECTOR CELLS OF ALLERGIC DISEASE

Block Symposium
FRI. 2:00 PM—BCC ROOM 308
CHAIR: L.B. Schwartz
COCHAIR: T.J. Lin

2:00 Regulation of IL-13 in mast cells by the Let-7 miRNA family. C. Takemoto, C. Gamper, Y. Lee, J. Mendell, S. Brandal, J. Powell and M. McDevitt. Johns Hopkins Univ. and Johns Hopkins Sch. of Med. (86.15)


2:30 Adenosine receptor A3AR is responsible for augmenting FcΣRI-induced degranulation of human lung mast cells by extracellular adenosine. G. Gomez and L.B. Schwartz. Virginia Commonwealth Univ. (86.17)


3:00 Basophils are transiently recruited into the draining lymph nodes during helminth infection via IL-3 but infection induced Th2 immunity can develop without basophil lymph node recruitment or IL-3. B. Min, S. Kim, M. Prout, H. Ramshaw, A. Lopez and G. Le Gros. Cleveland Clin. Fndn., Malaghan Inst. of Med. Res., New Zealand and Ctr. for Cancer Biol., Australia. (86.19)


3:30 CCR3-mediated degranulation and eosinophil-associated RNases secretion from murine eosinophils; capacity of intact cells and free granules. R. Shamri, R.C. Melo and P.F. Weller. Beth Israel Deaconess Med. Ctr. And Federal Univ. of Juiz de Fora, Brazil. (86.21)

3:45 Expression of the human basophil (BASO) activation marker, CD63, may reflect the extent of degranulation by the AND (anaphylactic degranulation) mechanism. D. MacGlashan. Johns Hopkins Univ. (86.24)
5. HOST DEFENSE: INNATE IMMUNE MECHANISMS AND PROTECTIVE IMMUNITY
Block Symposium
FRI. 2:00 PM—BCC ROOM 307
CHAIR: C. Feng
COCHAIR: D. Abraham

2:00  IRF5 deficiency severely impairs the development of T helper 1 responses following Leishmania donovani infection. S. Stager, A. Paun, T. Joshi and P.M. Pitha. Johns Hopkins Sch. of Med. and Johns Hopkins Univ. (37.3)

2:15  TIPE2 serves as a molecular switch of phagocytosis during infection. Z. Wang, D. Johnson, H. Sun, Y. Gus, S. Fayngerts, F. Xue, Q. Ruan and Y.H. Chen. Univ. of Pennsylvania Sch. of Med. (37.12)

2:30  Blockade of triggering receptor expressed on myeloid cells (TREM) signalling during a primary influenza infection reduces susceptibility to secondary bacterial pneumonia. G. Xin, E. Wissinger and T. Hussell. Imperial Col. London, United Kingdom, Imperial Col. London and NHLI, United Kingdom. (37.21)


3:00  Proinflammatory cytokines and type I interferon are differentially induced by virulent and avirulent mycobacteria in human macrophages. A.A. Novikov, R. Thompson, A. Sher and C. Feng. NIAID, NIH. (37.36)

3:15  Intravital imaging of Borrelia burgdorferi and murine innate immune cells during early cutaneous infection. J. Lavik, V. Shukla and R. Wooten. Univ. of Toledo Hist. Sci. Campus. (37.42)

3:30  Alternately activated macrophages kill the parasitic nematode Strongyloides stercoralis in conjunction with neutrophils through two unique mechanisms. S. Bonne-Annee, A.E. O’Connell, J. Hess and D. Abraham. Thomas Jefferson Univ. (37.44)


6. T CELL DEVELOPMENT AND THYMIC ARCHITECTURE
Block Symposium
FRI. 2:00 PM—BCC ROOM 321-323
CHAIR: J.M. Sen
COCHAIR: C-R. Wang


2:45  What goes up must come down: The consequences of not turning down pre-TCR induced β-catenin. A. Sharma, Q. Yu and J. Misra Sen. NIA, NIH. (36.29)


3:15  Phenotypic and functional characterization of group 1 CD1-restricted autoreactive T cells in a transgenic mouse model expressing human group 1 CD1 and a CD1b-specific T cell receptor. S. Li, H. Choi, S. Shanmuganad and C. Wang. Northwestern Univ. and Univ. of Chicago. (36.31)


11. CYTOKINES IN INFLAMMATORY RESPONSES
Block Symposium
SAT. 8:00 AM—BCC ROOM 309
CHAIR: E.M. Lord
COCHAIR: D. Ganea

8:00  IFN®: an anti-inflammatory cytokine which inhibits dendritic cell migration and proinflammatory cytokine production. J. Yen, W. Kong and D. Ganea. Temple Univ. Sch. of Med. (35.1)  


8:45  Inhibition of T cell proliferation decreases atherosclerotic lesion size revealing a role of IL-17 in mediating aortic CD11b+CD11c+ cell accumulation. S. von Vietinghoff, E.K. Koltsova, J. Mestas and K. Ley. Virginia Commonwealth Univ. (35.4)  

9:00  Macrophage migration inhibitory factor promotes central nervous system pathology in a model of neuroinflammation. G.M. Cox, J. Alexander, A. Satoskar and C.C. Whitacre. Ohio State Univ. (35.5)  


12. MOLECULAR MECHANISMS OF ANTIGEN PROCESSING AND PRESENTATION
Block Symposium
SAT. 8:00 AM—BCC ROOM 318-320
CHAIR: R.J. Binder
COCHAIR: S. Sadegh-Nasseri

8:00  Drug controlled antigen degradation defines sources of MHC class I peptides and enables pathway discovery. B. Dolan, J.R. Bennink and J.W. Yewdell. NIH. (130.29)  

8:15  Ovalbumin-derived precursor peptides are transferred sequentially from gp96 and calreticulin to MHC I in the endoplasmic reticulum. L.E. Kropp, M. Garg and R.J. Binder. Univ. of Pittsburgh and Univ. of Connecticut. (130.26)  


8:45  Editing the pMHCI repertoire in the ER by tapasin and ERAAP. T. Kanaseki, K. Camfield Lind and N. Shastri. Univ. of California, Berkeley and Sapporo Med. Univ., Japan. (130.24)  

9:00  The effects of HLA-DO on peptide binding by MHC Class II HLA-DR1. Y.O. Poluektov, A. Kim, S. Khoruzhenko and S. Sadegh-Nasseri. Johns Hopkins Univ. (130.14)  


9:45  T cell epitopes derived from autoantigens are selected differently than those from exogenous antigens. A. Kim, I. Hartman, T. Boronina, R.N. Cole and S. Sadegh-Nasseri. Johns Hopkins Univ. (130.15)
13. MUCOSAL IMMUNITY IN HOST DEFENSE AND AUTOIMMUNITY
Block Symposium
SAT. 8:00 AM—BCC ROOM 316-317
CHAIR: D.W. Pascual
COCHAIR: Y. Cong

8:00  Differentiation of Peyer’s patch M cells does not require signals from B cells: evidence from a mouse model of acute antibody-mediated depletion of B cells.
K.A. Knoop, B.R. Butler, N. Kumar and I.R. Williams. Emory Univ. (90.1)

8:15  A small intestine trans-epithelial conduit system assists in lamina propria DC sampling.

8:30  Enterotoxigenic E. coli CFA/I fimbriae abate collageninduced arthritis (CIA) via regulatory CD39+ T cells and IL-35.
I. Kochetkova, T. Thornburg, G. Callis, K. Crist and D.W. Pascual. Montana State Univ. (47.1)

8:45  Microbiota antigen specific Th17 cells induce colitis and promote Th1 cell response through IL-17 induction of innate cell IL-12 and IL-23 production.
T. Feng, H. Qin, L. Wang, E.N. Benveniste, C.O. Elson and Y. Cong. Univ. of Alabama at Birmingham. (47.3)

9:00  Generation of intestinal effector and memory CD8 T cells following oral Listeria monocytogenes infection.
B.S. Sheridan, E.R. Jellison and L. Lefrançois. Univ. of Connecticut Hlth. Ctr. (46.1)

9:15  Conversion of conventional T cells to Tregs within the eye and the dual role of the vision related molecule, retinoic acid, in ocular immune privilege.
R. Zhou, R. Horai, M. Mattapallil, R. Rigden, R. Villasmil and R. Caspi. NEI, NIH. (48.1)

9:30  Dendritic cell-expressed CD103 is required for inhibition of mucosal Th2 cell responses.
S.C. Mullaly, S. Matlyb, K. Burrows, K.M. McNagny and C. Zaph. Univ. of British Columbia, Canada. (90.3)

9:45  Essential role of membrane trafficking factor AP-1B in gut immune homeostasis.
D. Takahashi, K. Hase, S. Kimura and H. Ohno. Yokohama City Univ., Japan and RIKEN, Japan. (90.4)

14. TUMOR IMMUNE RESPONSE
Block Symposium
SAT. 8:00 AM—BCC ROOM 308
CHAIR: C.G. Drake
COCHAIR: N. Scholler

8:00  The role of NFATc1 in tumor T cell responses to lung cancer.
S. Reppert, I. Boross, M. Koslowski, Ö. Türeci, H. Lehr, L. Glimcher and S. Finotto. Univ. of Erlangen-Nürnberg, Germany, Univ. of Mainz, Institute of Molec. Med., Germany, Univ. of Mainz, III Med. Clin., Germany, Centre Hospitalier Universitaire Vaudois, Switzerland and Harvard Med. Sch. (101.6)

8:15  Ovarian tumor infiltrating B lymphocytes have proangiogenic properties.
S. Nunez-Cruz, M. Guerra, D. Connolly, G. Coukos, P. Gimotty and N. Scholler. Univ. of Pennsylvania and Fox Chase Cancer Ctr. (101.7)

8:30  Toll-like receptor agonists to the rescue: saving tumorspecific T-cells.

8:45  Cytotoxic chemotherapy rescues tumor-driven aberrant CD4+ T cell differentiation and restores an activated polyfunctional helper phenotype.
G. Zhou, Z. Ding, B. Blazar, A. Mellor and D. Munn. Med. Col. of Georgia and Univ. of Minnesota. (101.9)

9:00  A phosphorylated β-catenin peptide that is presented by HLA-A2 generates strong phosphospecific T cell responses against melanoma.
R.C. Obeng, I.C. Le Poole, D.F. Hunt and V.H. Engelhard. Univ. of Virginia and Loyola Univ. (101.10)

9:15  In vitro enhancing oxidative phosphorylation by rapamycin in proliferative CD8+ T cells during antigenic priming augments the generation of long-lived memory T cells in vivo.

9:30  Role of human lymphocyte activation gene 3 in tumor infiltrating lymphocytes.

9:45  A distinct role of CD4+ Th17 and Th17-stimulated CD8+ CTL in induction of antitumor immunity and experimental autoimmune encephalomyelitis.
M. An Kathatti Munegowda and J. Xiang. Univ. of Saskatchewan, Canada and Saskatoon Cancer Ctr., Canada. (101.5)
18. CD8 T CELL MEMORY AND PLASMA CELL RESPONSES
Block Symposium
SAT. 10:15 AM—BCC ROOM 307
CHAIR: D.M. Allman
COCHAIR: D.A. Hildeman

10:15  Bcl-2 maintains KLRG1low CD127high effector CD8+ and central memory CD8+ T cells by distinct mechanisms. S. Kurtulus, P. Tripathi, A. Sholl and D. Hildeman. Cincinnati Children’s Hosp. and Univ. of Cincinnati Col. of Med. (132.9)


10:45  The A2A adenosine receptor regulates T cell effector and memory differentiation. A. Waickman and J. Powell. Johns Hopkins Sch. of Med. (132.13)

11:00  Homeostatic Proliferation (HP) induced CD8+ T cell memory is regulated by the energy sensitive kinase; mTOR. Q. Li, R. Rao and P.A. Shrikant. Roswell Park Cancer Inst. (132.17)


11:45  T-independent antigens induce the formation of long-lived plasma cells. A. Bortnick, W.J. Quinn III, M.P. Cancro and D. Allman. Univ. of Pennsylvania. (132.18)

12:00  RANK-L expression marks long-lived plasma cells. W.J. Quinn, W. Stohl, Y. Choi and M.P. Cancro. Univ. of Pennsylvania Sch. of Med. and Univ. of Southern California Sch. of Med. (132.5)

19. EPIGENETIC REGULATION IN B AND T LYMPHOCYTES
Block Symposium
SAT. 10:15 AM—BCC ROOM 318-320
CHAIR: Z. Zhang
COCHAIR: S.D. Fugmann

10:15  Role of the 3’ heavy chain enhancers in germline transcription and switch recombination. W. Dunnick, J. Shi, C. Fontaine, J. Zerbato and J.T. Collins. Univ. of Michigan and Smith Col. (88.1)


10:45  The V(D)J recombination machinery is associated with the nuclear matrix. M.D. Lange, W. Xie, S. Hong, Z. Yu, T. He, L. Huang, Y. Yu, K.M. Marran-Nichol, P.C. Swanson, R. Lu, K. Su and Z. Zhang. Univ. of Nebraska Med. Ctr. and Creighton Univ. (88.3)


11:15  Regulation of chromatin remodeling during thymocyte differentiation. S. Dovat, C. Song, Z. Gurel, K.J. Payne and M. Popescu. Univ. of Wisconsin, Madison and Loma Linda Univ. (88.5)

11:30  The chromatin remodeling landscape of T helper cell differentiation. A. Wurster, S. De, P. Precht, W. Wood, K.G. Becker and M.J. Pazin. NIA, NIH. (88.6)
20. IMMUNE REGULATION IN ALLERGY
Block Symposium
SAT. 10:15 AM—BCC ROOM 321-323
CHAIR: D.H. Conrad
COCHAIR: A. Ray

10:15 Glutamate signaling through the kainate receptor is critical for human B cell IgE production. J.L. Sturgill and D. Conrad. Virginia Commonwealth Univ. (91.9)

10:30 The role of IL-6 in T-bet (-/-) mice in an allergic asthma model. S. Fassbender, C. Übel, L. Böhm, H. Lehr and S. Finotto. Univ. of Erlangen-Nürnberg, Germany, Univ. of Mainz, Germany and Centre Hospitalier Universitaire Vaudois, Switzerland. (91.10)

10:45 Type I interferon reverses human Th2 commitment and stability by repressing GATA3. J.P. Huber, H.J. Ramos, M.A. Gill and J.D. Farrar. Univ. of Texas Southwestern Med. Ctr. (91.11)


11:15 Mast cells expression of the ADAM-10 protease is inhibited by IL-10 and TGFb1. J. Ryan, B. Vance, K. Williams and J. Morales. Virginia Commonwealth Univ. (91.13)

11:30 Cleavage of CD23 by ADAM proteins is regulated by beta-2 adrenergic receptor stimulation on B cells. C. Padro and V.M. Sanders. Ohio State Univ. (91.14)

11:45 Roles of TSLP in diverting airway tolerance to Th2 sensitization. B. Zhou, L. Lei and Y. Zhang. Indiana Univ. Sch. of Med. (91.6)

12:00 HVEM-LIGHT interactions promote generation of memory Th2 cells that mediate lung inflammation. P. Soroosh, T. Doherty, T. So, S. Fukuyama, C. Ware and M. Croft. La Jolla Inst. for Allergy and Immunol. and UCSD. (91.8)

21. TUMOR IMMUNE ESCAPE
Block Symposium
SAT. 10:15 AM—BCC ROOM 309
CHAIR: J.L. Riley
COCHAIR: D.E. Kaplan

10:15 Cancer cells utilize a novel regulatory subset of B cells to promote escape and metastasis. P.B. Olkhanud, B. Damdinsuren, R. Sen, R. Gress and A. Biragyn. NIA, NIH. (100.26)


10:45 Tumor microenvironments direct the recruitment and expansion of human Th17 cells. G. Peng, X. Su, J. Ye, E. Hsueh, Y. Zhang and D. Hoft. St. Louis Univ. (100.28)

11:00 Advanced liver disease due to hepatitis C infection is associated with reduced CD19+CD27+ memory B cells. D.E. Kaplan, T.K. Iyer, E. Carpenter and R.H. Vonderheide. Philadelphia VAMC and Univ. of Pennsylvania. (100.29)


11:30 Inflammation-induced myeloid-derived suppressor cells have enhanced resistance to apoptosis. O.Y. Chornoguz, L. Grmail, P. Sinha, K. Artemenko, R. Zubarev and S. Ostrand-Rosenberg. Univ. of Maryland, Baltimore County and Uppsala Univ., Sweden. (100.31)


25. AUTOIMMUNITY: EFFECTOR CELLS AND MECHANISMS OF TISSUE DAMAGE
Block Symposium
SAT. 1:45 PM—BCC ROOM 321-323
CHAIR: R.R. Singh
COCHAIR: D.L. Farber

1:45  Dendritic cells in the skin of autoimmune mice display an inability to migrate: a novel mechanism and role in skin inflammation. A.U. Eriksson, P.J. Kim, J.K. King, C. Okereke and R.R. Singh. UCLA. (135.12)

2:00  Tissue tropism of autoreactive memory CD4 T-cells. J.R. Lees and D.L. Farber. Univ. of Maryland, Baltimore. (135.30)


2:45  Genetic ablation of steroid receptor coactivator-3 promotes PPAR-γ-mediated alternative activation of microglia in experimental autoimmune encephalomyelitis. Y. Zhang and Y. Xiao. Shanghai Jiao Tong Univ. Sch. of Med., China. (135.1)


26. IMMUNITY TO INFLUENZA VIRUS INFECTIONS
Block Symposium
SAT. 1:45 PM—BCC ROOM 310
CHAIR: P.G. Thomas
COCHAIR: T.S. Kim

1:45  Antigen persistence and the control of local T cell memory by migrant respiratory dendritic cells following acute virus infection. T.S. Kim, M.T. Hufford, J. Sun and T.J. Braciale. Univ. of Virginia. (92.11)

2:00  The role of CCR7 in CD8 T cell egress from the lung during influenza A virus infection. S.G. Jennrich. Univ. of Pennsylvania Sch. of Vet. Med. (92.17)


3:00  The role of different virus-specific effector memory T-cell subsets in response to influenza A/H3N2 and pandemic A/H1N1 strains in older compared to young adults. X. Zhou and J.E. McElhaney. Univ. of Connecticut Hlth. Ctr. (92.2)


27. REGULATION OF B CELLS AND ANTIBODY RESPONSES

Block Symposium
SAT. 1:45 PM—BCC ROOM 318-320
CHAIR: G.A. Bishop
COCHAIR: B.B. Blomberg

1:45  CD40 signaling regulates both adaptive and innate immune receptors through TRAF degradation. J.P. Graham and G.A. Bishop. Univ. of Iowa and VA. (84.3)

2:00  Kinetic and function of c-Rel in naïve B cells. B. Damdinsuren, R. Grumont, Y. Zhang, W.H. Wood, K.G. Becker, S. Gerondakis and R. Sen. NIA, NIH, NII, Burnet Inst., Australia and RRB, NIA, NIH. (84.4)

2:15  Fc receptor-like 5 has dominant inhibitory function in B cells that is mediated via Lyn and SHP-1. Z. Zhu and R.S. Davis. Univ. of Alabama at Birmingham. (84.5)

2:30  Regulation of immunoglobulin secretion during adaptive immunity. S. Jones and B.J. Vilen. Univ. of North Carolina, Chapel Hill. (84.17)

2:45  Inhibition of cyclooxygenase-2 activity impairs antibody production in human B cells and in mice infected with vaccinia virus. R.P. Phipps, S. Bancos, D. Topham, T. Chapman and M. Bernard. Univ. of Rochester, Sch. of Med. and Dent. (84.8)

3:00  Cathelin-Related Antimicrobial Peptide (CRAMP) regulates B cell IgG1 production. Y. Chen, N.W. Kin and J.F. Kearney. Univ. of Alabama at Birmingham. (84.13)


28. TFH, TH9, AND TH2 DIFFERENTIATION

Block Symposium
SAT. 1:45 PM—BCC ROOM 324-326
CHAIR: S. Crotty
COCHAIR: P.L. Schwartzberg

1:45  Roles of Bcl6 and Blimp1 in CD4 T follicular helper (Tfh) lineage commitment. D. DiToro, R.J. Johnston and S. Crotty. La Jolla Inst. for Allergy and Immunol. And UCSD. (99.11)


2:30  PU.1 is required for generating the IL-9-producing Th9 phenotype. W. Yao, R.S. Tepper and M.H. Kaplan. Indiana Univ. Sch. of Med. (99.10)

2:45  CD4+ recent thymic emigrants are biased to the Th2 lineage. D.W. Hendricks and P.J. Fink. Univ. of Washington. (99.14)

3:00  Requirement of voltage-gated calcium (Cav) channels in T cell receptor-mediated calcium response and effector functions of T lymphocytes. M.K. Jha, A. Badou and R.A. Flavell. Yale Sch. of Med. (99.13)


3:30  Elf3 regulates dendritic cell driven T cell differentiation. R. Kushwah, J. Wu, J.R. Oliver and J. Hu. Hosp. for Sick Children, Canada and Univ. of Toronto, Canada. (99.1)
56. CHEMOKINES AND THEIR RECEPTORS IN HEALTH AND DISEASE

Block Symposium
SUN. 8:00 AM—BCC ROOM 318-320
CHAIR: J.W. Lillard
COCHAIR: S.S. Watowich

8:00 The DRF motif in CXCR6 is important for selectivity among G-proteins in receptor signaling, which is cell-type specific. S.P. Singh, J.F. Foley, H.H. Zhang and J.M. Farber. NIAID, NIH. (133.1)

8:15 STAT3 controls the neutrophil migratory response to CXCR2 ligands by direct activation of G-CSF-induced CXCR2 expression and via modulation of CXCR2 signal transduction. H. Nguyen-Jackson, A.D. Panopoulos, H. Zhang, H.S. Li and S.S. Watowich. Univ. of Texas MD Anderson Cancer Ctr. and Salk Inst. for Biol. Studies. (133.2)

8:30 Role of CXCL12 and its receptor, CXCR4, in diversification of the rabbit primary antibody repertoire. D.K. Lanning and K.L. Knight. Loyola Univ. Chicago. (133.3)


9:00 CD38 modulates CXCR4-mediated signals and homing of chronic lymphocytic leukemia (CLL) cells. T. Vaisitti, S. Aydin, D. Rossi, F. Cottino, V. Audrito, S. Serra, G. D’Arena, P. Brennan, C. Pepper, G. Gaidano, F. Malavasi and S. Deaglio. Univ. of Torino, Italy, Amedeo Avogadro Univ. of Eastern Piedmont, Italy, IRCCS “Casa Sollievo della Sofferenza” Hosp., Italy and Cardiff Univ., United Kingdom. (133.5)


57. INNATE AND ADAPTIVE IMMUNITY IN AQUATIC ANIMAL MODELS

Block Symposium
SUN. 8:00 AM—BCC ROOM 314
CHAIR: S.M. Barratt-Boyes
COCHAIR: J. Robert

8:00 Phylogenetic and developmental study of CD4, CD8α and CD8β T cell co-receptor homologs in two amphibian species, Silurana (Xenopus) tropicalis and Xenopus laevis. A.S. Chida, A. Goyos and J. Robert. Univ. of Rochester Med. Ctr. (43.5)

8:15 Evidence for somatic hypermutation at shark T cell Receptor α locus. M.F. Criscitiello, J.O. Eubanks, A.B. Coots and M.F. Flajnik. Texas A&M Univ. and Univ. of Maryland Sch. of Med. (43.6)

8:30 An FcγR expressed by channel catfish, Ictalurus punctatus, clonal CTL mediates inhibitory effector functions and recruits SHIP. D.K. Nayak, M. Wilson and E. Bengtén. Univ. of Mississippi Med. Ctr. (43.7)

8:45 Roles of MHC class Ia and class Ib in hsp70 mediated anti-tumor responses in the frog Xenopus. H. Nedelkovska, A. Goyos, D. Easterhoff, S. Maggirwar and J. Robert. Univ. of Rochester Med. Ctr. (43.11)

9:00 IgD-bearing B cell populations in the channel catfish, Ictalurus punctatus. E.I. Edholm, M. Sahoo, E. Bengtén and M. Wilson. Univ. of Mississippi Med. Ctr. (43.17)

9:15 Analysis of the assembly mechanism for multimeric lamprey VLRB antibodies. J. Li, B.R. Herrin, P. Guo and M.D. Cooper. Emory Univ. (43.19)

9:30 Transducing the affinity of antigen recognition into graded structural modifications of the antibody product. S. Kaattari, J. Ye and E. Bromage. Virginia Inst. of Marine Sci. and Dept. of Biol., Univ. of Massachusetts. (43.21)

58. NEW THERAPEUTIC TARGETS IN AUTOIMMUNITY
Block Symposium
SUN. 8:00 AM—BCC ROOM 310
CHAIR: G.G. Illei
COCHAIR: S.D. Miller
8:00 Single dose nasal immunotherapy rapidly recruits NK cell-dependent regulatory T (Treg) cells into central nervous system (CNS) to ameliorate experimental autoimmune encephalomyelitis (EAE). E. Huarte, A. Rynda, M. Maddaloni, C. Riccardi and D.W. Pascual. Montana State Univ. (96.12)
8:30 Therapeutic effect of lithium in EAE: effects on dendritic cells and encephalitogenic activity of T cells. A.L. Buel, R. Naves, T. Mbana, C. Raman and P. De Sarno. Univ. of Alabama at Birmingham. (96.16)
8:45 CXCR7 antagonism prevents leukocyte trafficking into the central nervous system and treats ongoing disease during experimental autoimmune encephalomyelitis. L. Cruz-Orengo, D. Holman, M. Wright, D. Dorsey and R.S. Klein. Washington Univ. Sch. of Med. (96.5)
9:00 B-cell delivered gene therapy for tolerance in EAE: role of antigen-specific B cells. A. Zhang, O. Onabajo, Y. Su, J. Skupsky and D.W. Scott. Univ. of Maryland Sch. of Med. (96.27)
9:30 Efalizumab down-regulates CD25 expression on FOXP3+ regulatory T cells and exacerbates the autoimmune in primary Sjogren’s syndrome. D. Tran, L. Bebris, E.M. Shevach and G. Illei. Univ. of Texas Med. Sch. at Houston, NIDCR, NIH and NIAID, NIH. (96.4)
9:45 Protection against lupus nephritis in MRL-lpr mice expressing a natural autoantibody transgene. Q.C. Chen, K. Mannoor and A. Matejuk. Univ. of Maryland. (143.39)

59. REGULATION OF ADAPTIVE IMMUNITY DURING MICROBIAL INFECTION
Block Symposium
SUN. 8:00 AM—BCC ROOM 309
CHAIR: K.M. Khanna
COCHAIR: M. Croft
8:00 Role of sphingosine-1-phosphate receptor 1 in effector CD8 T cell migration. K.M. Khanna, D. Xu and B. Rudenga. Univ. of Connecticut Hlth. Ctr. (137.15)
8:15 Intravital 2P-imaging reveals anti-viral CTL mediated fatal pathology by recruiting myelomonocytic cells. D.B. McGavern, S. Kang, J. Kim and M. Dustin. NIH and NYU Sch. of Med. (137.17)
8:30 Immune molecular plasticity links viral virulence to protective T cell vaccines. S. Salek-Ardakani, R. Flynn, R. Arens, H. Yagita, G. Smith, J. Borst, S. Schoenberger and M. Croft. La Jolla Inst. for Allergy and Immunol., Imperial Col. London, United Kingdom, Netherlands Cancer Inst., Netherlands and Juntendo Univ., Japan. (137.2)
9:00 Prolonged antigen presentation is required for optimal CD8+ T cell responses against malaria liver stage parasites. I.A. Cockburn, Y. Chen, M.G. Overstreet, J.R. Lees, D.L. Farber and F. Zavala. Johns Hopkins Sch. of Publ. Hlth. and Univ. of Maryland, Baltimore. (137.16)
9:30 Downregulation of TACI by Neisseria meningitidis type C polysaccharide vaccine is responsible for its weak immunogenicity. M. Akkoyunlu, N. Katsenelson, M.S. Blake and S. Kanswal. FDA/CBER. (137.4)
60. ITREG, TH17, AND CD4 CTL DIFFERENTIATION
Block Symposium
SUN. 8:00 AM—BCC ROOM 316-317
CHAIR: M.L. Alegre
COCHAIR: J.C. Rathmell

8:00 High doses of TCR stimuli prevent conversion of naïve CD4+ T cells into iTregs in an NF-kB-dependent manner. L. Molinero and M. Alegre. Univ. of Chicago. (139.10)


8:30 Regulatory T cell hybridoma reveal novel Foxp3 inducing factors. R. Sharma, A.C. Ju, S.J. Sung and S.T. Ju. Univ. of Virginia. (139.7)

8:45 PKC-θ mediates negative feedback on regulatory T cell function. A. Zanin-Zhorov, Y. Ding, S. Kumari, M. Attur, K. Hippen, M. Brown, B. Blazar, S. Abramson, J. Lafaillle and M. Dustin. Helen and Martin Kimmel Ctr. for Biol. and Med., Skirball Inst. of Biomolecular Med., NYU Sch. of Med., NYU Hosp. for Joint Dis., Univ. of Minnesota Cancer Ctr. and Boehringer Ingelheim. (139.1)

9:00 SHP-1 negatively regulates Th17 cell development. I.S. Mauldin and U. Lorenz. Univ. of Virginia. (139.6)

9:15 Notch signaling regulates human and mouse TH17 development. S. Keerthivasan, R. Suleiman, C.I. Le Poole, B.J. Nickoloff, B. Osborne and L. Miele. Loyola Univ. Med. Ctr., Univ. of Massachusetts and Univ. of Mississippi. (139.13)


9:45 IL-2 induces perforin-mediated cytotoxicity in CD4 cells via STAT5 signaling. D.M. Brown, J.M. Ganfield, S. Lee and S.A. Condon. Univ. of Nebraska, Lincoln. (139.9)

64. CANCER IMMUNOTHERAPY
Block Symposium
SUN. 10:15 AM—BCC ROOM 316-317
CHAIR: J.R. Conejo-Garcia
COCHAIR: A.A. Hurwitz


11:30 Combination of CTLA-4 blockade with anti-CD40/IL-2 immunotherapy augments the CD8+ T cell response in resting and tumor-bearing mice. G.D. Sckisel, N.S. Nziriga, A. Hurwitz, B.R. Blazar and W.J. Murphy. Univ. of California, Davis, NCI, NIHFrederick and Univ. of Minnesota Cancer Ctr. (131.17)

11:45 Reconstitution of peripheral CD4+FOXP3+ regulatory T cells in cancer patients receiving adoptive immunotherapy is related to the clinical response to therapy. X. Yao, M. Ahmadzadeh, S.A. Rosenberg and P.F. Robbins. NCI, NIH. (131.18)

12:00 Provision of CD4+ T cell help preferentially enhances antitumor immunity of high avidity T cells. Z. Zhu, V. Singh, V. Bronte, L. Feigenbaum and A.A. Hurwitz. NCI, NIH, Univ. of Padova, Italy and SAIC Frederick. (131.19)
65. HOST DEFENSE: INNATE IMMUNE RECEPTORS AND SIGNAL TRANSDUCTION
Block Symposium
SUN. 10:15 AM—BCC ROOM 309
CHAIR: P.J. Murray
COCHAIR: S.N. Vogel


11:00 Toll-like receptor 9 is alternatively cleaved to generate a soluble form of the receptor that downregulates response to CpG-DNA. A. Chockalingam, J.C. Brooks, J.L. Cameron and C.A. Leifer. Cornell Univ. (136.25)


11:30 Identification of dTOR as a signaling component in the Drosophila immune response. Y. Duan and J.D. Powell. Johns Hopkins Univ. (136.41)

11:45 Inflammasome-dependent IL-1© production is critical for complete Freund's adjuvant-induced helper T cell polarization. K. Shenderov, D. Barber, K. Mayer, D. Jankovic, S. White, P. Caspar, S. Hiény, G. Trinchieri, G. Besra, V. Cerundolo and A. Sher. NIAID, NIH, Weatherall Inst. of Molec. Med., Oxford Univ., United Kingdom, NCI, NIH and Sch. Of Biosciences, Univ. of Birmingham, United Kingdom. (136.44)

12:00 Structural studies of Toll like receptor signaling adaptors. G. Snyder, J. Jiang, K. Chen, T. Fresquez, P. Smith, N. Snyder, T. Luchetti, C. Cirì, T. Miethke, N. Tjandra and T.S. Xiao. NIAID, NIH, Institut für Medizinische Mikrobiologie, Technische Universität München, Germany and NHLBI, NIH. (136.45)

66. IMMUNOMODULATORY CYTOKINES
Block Symposium
SUN. 10:15 AM—BCC ROOM 308
CHAIR: G. Grunig
COCHAIR: L. Lefrançois

10:15 IL-16 mediates CD4 T lymphocyte accumulation in the lymph nodes by desensitizing S1P1. D.S. Green, J. Richmond, B. Harstine, D. Center and W. Cruikshank. Boston Univ. Sch. of Med. (134.1)

10:30 IL-27 promotes Tc1 polarization of human CD8 T lymphocytes and enhances their proliferation and effector functions. N. Arbour, R. Schneider, T. Yaneva and D. Beauseigle. Université de Montreal-CRCHUM, Canada. (134.2)

10:45 Visualization of IL-15 expression in innate immune cells during homeostasis and inflammation. T.A. Stoklasek, S.L. Colpitts, J.J. Obar, C. Guo and L. Lefrançois. Univ. of Connecticut Hlth. Ctr. and HHMI, Transgenic Unit at Janelia Farm Res. Campus. (134.3)

11:00 Mechanistic study of leptin-enhanced B cell survival. Q. Lam and L. Lu. Univ. of Hong Kong, Hong Kong. (134.7)

11:15 The region in the common gamma chain between amino acids (aa) 314-323 dictates efficient activation of the insulin receptor substrate (IRS)-2 pathway by interleukin (IL)-4. N.M. Heller, X. Qi, F. Gesbert and A.D. Keegan. Univ of Maryland Baltimore, Institut Pasteur, France and Universite Paris-Sud, France. (134.4)


12:00 Distinct roles for IL-13 and IL-17 in chronic inflammation and fibrosis. T.A. Wynn, T. Ramalingam, S. Madala, R. Thompson, M. Mentink, L. Barron, A. Cheever and M. Wilson. NIAID, NIH. (134.8)
67. LEUKOCYTE ACTIVATION, ADHESION, AND RECRUITMENT
Block Symposium
SUN. 10:15 AM—BCC ROOM 318-320
CHAIR: K. Ley
COCHAIR: M. Nagarkatti

10:15 Calcium signaling promotes targeted recycling of the lateral border recycling compartment (LBRC) during diapedesis.
F. Han, O. Florey, G. Feng and W.A. Muller.
Northwestern Univ. (140.1)

10:30 Monocyte trafficking to hepatic sites of bacterial infection is chemokine-independent and directed by focal ICAM-1 expression.
Sch. of Med. Sci. (140.2)

N. Dixit and S.I. Simon.
Univ. of California, Davis. (140.3)

11:00 Cannabidiol attenuates experimental autoimmune hepatitis by inducing accumulation of myeloid-derived suppressor cells (MDSCs) in liver.
V.L. Hegde, P.S. Nagarkatti and M. Nagarkatti.
Univ. of South Carolina. (140.4)

11:15 Cyclophilin A synergizes with MIP-2 to augment proinflammatory leukocyte recruitment.
George Washington Univ. (140.5)

11:30 In vivo imaging of monocyte-mediated neutrophil extravasation during acute arthritis.
Washington Univ. in St. Louis and Pfizer Global R&D. (140.6)

11:45 Cross-talk between chemoattractant and integrin signaling required for robust calcium flux in neutrophils.
H. Zhang and K. Ley.
La Jolla Inst. of Allergy and Immunol. (140.7)

12:00 Evaluation of the effects of disease-causing mutations in type I TNF receptor (TNFR1) on neutrophil responses.
M. Pelletier, A.C. Bula, D.L. Kastner and R.M. Siegel.
NIAMS, NIH. (140.8)

68. REGULATION OF AUTOIMMUNE RESPONSES I
Block Symposium
SUN. 10:15 AM—BCC ROOM 310
CHAIR: C. Teuscher
COCHAIR: D.C. Roopenian

10:15 Evidence supporting the existence of a novel histaminergic pathway in the regulation of EAE susceptibility.
Univ. of Vermont. (143.51)

10:30 The splicing factor ASF/SF2 regulates the expression of the human T cell receptor CD3 zeta chain.
V.R. Moulton and G.C. Tsokos.
Beth Israel Deaconess Med. Ctr., Harvard Med. Sch. (143.11)

10:45 Beclin-1 is required for T cell-mediated immune responses.
J.R. Kovacs, C. Li and B. Lu.
Univ. of Pittsburgh, Sch. of Med. and Univ. of Pittsburgh Cancer Inst. (143.19)

11:00 The nuclear hormone receptor PPAR© regulates T cell activation and survival in lymphopenic autoimmune models.
W.J. Housley, C.A. O’Conor and R.B. Clark.
Univ. of Connecticut Hlth. Ctr. (143.8)

11:15 Sex-related differences in regulatory T cell function are estrogen and B7-H1 dependent.
Univ. of Texas Hlth. Sci. Ctr., Univ. of Colorado and South Texas Veterans Hlth. Care Syst. (143.53)

11:30 IL-17 downregulates p50 and p105 to sustain efficient active NF-κB signaling responses in the splenic B cells of autoimmune BXD2 mice.
S. Xie, H. Hsu, Q. Wu, J. Li, P. Yang, Y. Ding and J.D. Mountz.
Univ. of Alabama at Birmingham. (143.48)

11:45 CD8+ T suppressor cells protect from lupus-like autoimmunity.
C. McPhee, J. Bubier, T. Sproule, P. Wettstein, H. Morse and D. Roopenian.
The Jackson Lab., Mayo Clin. and NIH. (143.31)

12:00 A key role for Fas ligand on B cells in unleashing T cell diabetogenicity by suppression of IL-10-mediated islet tolerance.
Z. Xiao.
Johns Hopkins Univ. (143.34)
76. COSTIMULATION OF T CELL RESPONSES
Block Symposium
SUN. 1:45 PM—BCC ROOM 310
CHAIR: R.B. Effros
COCHAIR: P.D. Katsikis

1:45 Maintaining CD28 expression prevents replicative senescence in human CD8 T cells. S. Parish, J.E. Wu and R.B. Effros. UCLA. (50.23)

2:00 The effector phase of the CD8+ T cell response is not programmed during initiation. P. Duttagupta, D.V. Dolfi, A. Boesteanu, Y. Mueller and P.D. Katsikis. Drexel Univ. Col. of Med. (50.25)


2:30 Effects of bystander inflammatory cytokines on CD8 T cell response to future antigenic encounter. S. Thomas, G. Kolumam, L. Thompson and M. Kaja. Univ. of Washington. (50.33)

2:45 CD8 T cells require intrinsic GITR signaling for their clonal expansion during influenza infection in vivo. L.M. Snell, A.J. McPherson, G.H. Lin, S. Sakaguchi, P.P. Pandolfi, C. Riccardi and T.H. Watts. Univ. of Toronto, Canada, Univ. of Kyoto, Japan, Beth Israel Deaconess Med. Ctr., Harvard Med. Sch. and Univ. of Perugia, Italy. (50.21)

3:00 Intrinsic IL-21 signaling is critical for CD8 T cell memory formation in response to Vaccinia viral infection. P. Novy and Y. Yang. Duke Univ. (50.32)

3:15 Genome-wide transcription profiling identifies the mechanisms of LFA-1 contributing to CD8+ T cell activation and immune signal network. D. Li, H. Li, S. Liang, J.J. Moldrem and Q. Ma. Univ. of Texas MD Anderson Cancer Ctr. (50.26)


77. IMMUNITY, IMMUNIZATION, AND INFLAMMASOMES IN COMPARATIVE ANIMAL SPECIES
Block Symposium
SUN. 1:45 PM—BCC ROOM 314
CHAIR: W.T. Golde
COCHAIR: D.M. Estes


2:15 Embryo vaccination using novel adjuvant formulation and Eimeria profilin-induced protective immunity against E. maxima infection. H. Lillehoj, S. Lee, S. Jang, Y. Hong and D. Dominowski. Animal and Natural Resources Inst. and Pfizer Inc. (43.4)


78. IMMUNOLOGICAL IMPACTS OF ANTIGEN PROCESSING AND PRESENTATION
Block Symposium
SUN. 1:45 PM—BCC ROOM 318-320
CHAIR: L.M. Ganley-Leal
COCHAIR: C.M. Walker

1:45 Human invariant chain lип35 isoform expressed in lideficient mice fully restores thymic selection. L. Genève, N. Labrecque and J. Thibodeau. Université de Montréal, Canada. (130.16)

2:00 Exosome-mediated MHCII cross-presentation substantially enhanced by the receptor binding activity of influenza hemeagglutinin. J.S. Testa, G.S. Apcher and L.C. Eisenlohr. Thomas Jefferson Univ. (130.10)


2:30 IFN-γ suppresses antigen presentation by dendritic cells after infection. R.J. Thacker and M. Jordan. Cincinnati Children’s Hosp. (130.6)


3:30 Endogenous MR1 is transiently expressed on the cell surface and can be stabilized with a unique mAb for activation of mucosal-associated invariant T cells. W. Chua, L. Yu, N. Myers, S. Kim, S. Huang and T.H. Hansen. Washington Univ. in St. Louis. (130.19)

79. TRANSPLANTATION IMMUNOLOGY
Block Symposium
SUN. 1:45 PM—BCC ROOM 321-323
CHAIR: A.D. Wells
COCHAIR: T.J. Fry

1:45 Cyclin-dependent kinase 2 (CDK2) opposes T cell anergy and promotes cardiac allograft rejection. N. Chunder, L. Wang, W.W. Hancock and A.D. Wells. Children’s Hosp. of Philadelphia and Univ. of Pennsylvania. (145.41)

2:00 Over-expression of FGL2 leads to indefinite graft survival without the need for immunosuppression. A. Bartczak, W. He, I. Shalev, M. Mendicino, P. Urbanellis, J. Zhang, M. Ma, R. Khattar, O. Adeyi, J. Phillips, D. Grant and G. Levy. Univ. of Toronto, Canada and Univ. Hlth. Network, Canada. (145.37)

2:15 High-mobility group box1 contributes to kidney ischemia reperfusion injury through TLR4 signaling. H. Wu, J. Ma, P. Wang, K.R. Wyburn and S.J. Chadban. Royal Prince Alfred Hosp., Australia and Univ. of Sydney, Australia. (145.38)


3:00 Alloreactive CD8 T cells require cell-intrinsic PD-1 and upregulate N4a and Egr family members during deletional tolerance in vivo. C. Lucas and M. Sykes. Harvard Univ. (145.43)


3:30 STAT1-deficient bone marrow prevents GVHD by modulating plasmacytoid DCs while preserving vaccine-mediated responses to tumor. C.M. Capitini, S.M. Larabee, H. Qin, Y. Song, J. Khan, C.L. Mackall and T.J. Fry. NCI, NIH and Children’s Natl. Med. Ctr. (145.40)
105. INFLAMMATORY CYTOKINES
Block Symposium
MON. 8:00 AM—BCC ROOM 310
CHAIR: C.S. Via
COCHAIR: E. Galkina

8:00  TRAF6, a new member of the proximal signaling complex recruited by BAFFR and TACI in B lymphocytes. J. Hildebrand and G. Bishop. Univ. of Iowa and VAMC. (34.1)

8:15  Characterization of the role of indirect TRAF6 association in CD40 signaling. D. Decker and G. Bishop. Univ. of Iowa and VAMC. (34.2)

8:30  The type 2 TNF receptor plays a critical role in the activation of Tregs in vivo. W.J. Housley, C.A. O’Conor and R.B. Clark. Univ. of Connecticut Hlth. Ctr. (34.3)

8:45  Signaling through the TNF-R2 (p75) but not TNF-R1 (p55) is absolutely required for in vivo CTL maturation in parent-into-F1 mice. K. Solovieva, I. Puliaeva, T. Lang, R. Puliaev and C. Via. Uniformed Serv. Univ. of Hlth. Sci. and Univ. Maryland, Baltimore. (34.4)

9:00  Determining the extent to which clinically effective treatment, ustekinumab or etanercept, reverses the molecular disease profile of psoriatic skin: comparisons of lesional, non-lesional and normal skin. C. Brodmerkel, K. Li, F. Baribaud, M. Suarez-Farinas and J. Krueger. Centocor Res. & Develop. and Rockefeller Univ. (34.5)


106. MYELOID, NK, AND DC DEVELOPMENT
Block Symposium
MON. 8:00 AM—BCC ROOM 318-320
CHAIR: L. Borghesi
COCHAIR: K. Tarbell

8:00  miRNAs are required for the epidermal Langerhans cell development. L. Zhou, H. Wang, K. Li, R. Qi, Z. Zhang, M. Weiland, D.H. Kaplan and Q. Mi. Henry Ford Hlth. Syst. and Univ. of Minnesota. (36.18)

8:15  Interleukin-2 controls flt3L-dependent development and phenotype of conventional and plasmacytoid dendritic cells. A. Lau-Kilby, C. Kretz, J.J. O’Shea, G. Trinchieri and K.V. Tarbell. NIDDK, NIH, NIAMS, NIH and NCI, NIH. (36.19)


9:00  SHP2 protein-tyrosine phosphatase is a key regulator of mast cell signaling and development in mice. N. Sharma, S. Everingham, G. Feng, A. Roers and A.W. Craig. Queen’s Univ., Canada, UCSD and Tech. Univ. of Dresden, Germany. (36.22)

9:15  Predominance of an unusual natural killer phenotype during recovery after natural killer cell depletion. M. Alvarez, I. Barao, M.T. Orr, L.L. Lanier, D. Redelman and W.J. Murphy. Univ. of California, Davis, Univ. of Nevada, Reno and UCSF. (36.23)

9:30  Identification of an IL-7 responsive CD4+ lymphoid tissue inducer cell from adult human blood. V. Bekiaris, B. Greenberg, J. Sedy and C. Ware. La Jolla Inst. for Allergy & Immunol. (36.24)
107. NOVEL THERAPEUTIC APPROACHES IN MODELS OF ALLERGY
Block Symposium
MON. 8:00 AM—BCC ROOM 321-323
CHAIR: J.M. Cook-Mills
COCHAIR: R.S. Thrall


9:00 Immunocomplexes down-modulate the induction of food allergy in mouse. C.A. Alves de Araujo, B.S. Clay, K. Ganeshan, P.J. Bryce and A.I. Sperling. Univ. of Chicago and Northwestern Univ. (97.12)


9:45 Exercise increases regulatory T cell function and decreases Th2 and Th17 cytokine production in healthy and asthmatic mice. T. Lowder, K. Dugger, K. Estell, J. Deshane and L. Schieweiert. Univ. of Houston and Univ. of Alabama at Birmingham. (97.15)

108. T CELL SIGNALING
Block Symposium
MON. 8:00 AM—BCC ROOM 309
CHAIR: A. August
COCHAIR: J.L. Pomerantz

8:00 Regulation of TCR signaling and CARD11 by the kinesin GAKIN. R.L. Lamason, A. Kupfer and J. Pomerantz. Johns Hopkins Sch. of Med. (50.16)

8:15 Studying the cooperativity at the SLP-76 signaling complex critical for the immune response. M. Bara-Saad, N. Shirasu, M.H. Pauker, N. Hasan, O. Perl, A. Balbo, H. Yamaguchi, J.C. Houtman, E. Appella, P. Schuck and L.E. Samelson. Bar Ilan Univ., Israel, NCI, NIH, NIBIB, NIH and Univ. of Iowa. (50.7)

8:30 Partial rescue of Itk-/- iNKT cell development by Txk/Rlk reveals a unique role for Itk in the survival of iNKT cells. Q. Qi, Y. Bai, P. Schwartzberg and A. August. Pennsylvania State Univ. and NIH. (50.40)

8:45 Control of T cell activation by Drak2 depends on protein kinase D and the interplay between calcium and reactive oxygen species. R. Newton and C.M. Walsh. Univ. of California, Irvine. (50.6)

9:00 RIAM and RapL regulate distinct signaling events and functional outcomes upon TCR-mediated activation. N.E. Patsoukis, E.M. Lafuente and V.A. Boussiotis. Harvard Univ. Beth Israel Deaconess Med. Ctr. and Universidad Complutense de Madrid, Spain. (50.8)


112. CONTROL AND DEVELOPMENT OF TREG
Block Symposium
MON. 10:15 AM—BCC ROOM 316-317
CHAIR: D.W. Scott
COCHAIR: B.R. Blazar

10:15 Nuclear factor-κB drives the development of Foxp3+ regulatory T cells through the c-Rel enhanceosome. Q. Ruan, V. Kameswaran, Y. Tone, L. Li, H. Liou, M.I. Greene, M. Tone and Y.H. Chen. Univ. of Pennsylvania Sch. of Med. and Cornell Univ. Med. Col. (49.1)

10:30 Strong CD28 co-stimulation limits generation of regulatory T cells from naïve T cells through Lck and PI3K signaling. K. Semple, A. Nguyen and X. Yu. Univ. of South Florida and Moffitt Cancer Ctr. & Res. Inst. (49.4)


11:15 The transcriptional repressor BCL6 controls the suppressive function of regulatory T cells and inhibits Th2 cytokine expression by regulatory T cells. A. Dent and D. Sawant. Indiana Univ. Sch. of Med. (49.10)

11:30 NFATc2 is an intrinsic negative regulator of proliferation in effector T cells and is necessary for extrinsic control by regulatory T cells. J.F. Modiano, S.L. Highfill, Q. Zhou, M. Lewellen, S.L. Highfill, C.M. Bucher and B.R. Blazar. Univ. of Minnesota. (49.17)

11:45 T cell-intrinsic IL-10 signaling negatively regulates Th1 immunity by restraining IL-12 responsiveness of effector T cells. G. Yap, D. Wilson, A. Marple, M. Kamanaka and R. Flavell. New Jersey Med. Sch. and Yale Univ. (49.20)

12:00 T cell epitopes (Tregitopes) suppress immune responses in vivo by activating natural Tregs. Y. Su, L. Moise, X. Li, R. Rossi, J. Skupsky, W.D. Martin, A.S. DeGroot and D.W. Scott. Univ. of Maryland Sch. of Med., EpiVax, Inc. and Univ. of Rhode Island. (49.24)

113. IMMUNE RESPONSES TO VIRAL INFECTION
Block Symposium
MON. 10:15 AM—BCC ROOM 321-323
CHAIR: A.J. Zajac
COCHAIR: L.J. Sigal

10:15 ICAM-1 deficiency results in enhanced maintenance of effector CD8 T cells following infection. M.A. Cox, D.C. Bullard and A.J. Zajac. Univ. of Alabama at Birmingham. (39.3)

10:30 Structural determinants of IFNγ distinguish antiviral and potentially toxic functions. N. Vazquez, H. Schmeisser, J. Bekisz, K.C. Zoon and S.M. Wahl. NIDCR, NIH and NIAID, NIH. (39.7)

10:45 Not just neutralizing Abs: prevention and cure of a viral disease by antibodies that block the biological function of a virulence factor. R. Xu and L. Sigal. Fox Chase Cancer Ctr. (39.21)


11:15 Unravelling CD4 T cell dysfunction during chronic infection. A. Crawford and E. Wherry. Wistar and Univ. of Pennsylvania. (39.17)


12:00 Regulatory T cell expression of herpes virus entry mediator (HVEM) following HSV-1 infection and its functional significance. S. Sharma, A. Sundararajan, S. Mulik and B.T. Rouse. Univ. of Tennessee. (137.25)
114. LYMPHOCYTE / APC MIGRATION MECHANISMS
Block Symposium
MON. 10:15 AM—BCC ROOM 318-320
CHAIR: R.L. Fairchild
COCHAIR: B.S. Nikolajczyk


10:30  TNF-α induces endothelial cell expression of Intercellular Adhesion Molecule-1 (ICAM-1) required for recruitment of antigen-primed CD8 T cells to mediate responses in the skin. D.D. Kish, W.M. Baldwin and R.L. Fairchild. Cleveland Clin. (44.2)


11:00  Podoplanin interactions with CLEC-2 regulate dendritic cell migration. S.E. Pinner, D. Mourao-Sa and S.J. Turley. Dana Farber Cancer Inst. and UK London Res. Inst., United Kingdom. (44.4)

11:15  Development and migration of pre-plasma cells in the mouse lymph node. D.R. Fooksman, D. Skokos, M.L. Dustin and M. Nussenzweig. NYU, Skirball Inst., Rockefeller Univ. and Regeneron. (44.5)

11:30  Thioredoxin inhibits epidermal Langerhans’ cell (LC) migration in man and mouse. R. Dearman, M. Cumberbatch, G. Del Val, R. Almond, C. Griffiths and I. Kimber. Univ. of Manchester, United Kingdom and Syngenta Biopharma, United Kingdom. (44.6)

11:45  Matrix metalloproteases mediate migration of pulmonary T cells in response to influenza virus infection. B. Baaten, M. Deiro and L. Bradley. Burnham Inst. for Med. Res. (44.7)

12:00  Extracellular adenosine triggers lymphocyte entry into the central nervous system during experimental autoimmune encephalomyelitis by regulating chemokine and adhesion molecule expression in the brain. J.H. Mills, L. Alabanza, C. Mueller and M.S. Bynoe. Cornell Univ. (44.12)

115. TRANSCRIPTIONAL AND POSTTRANSCRIPTIONAL REGULATION OF CYTOKINE AND CYTOKINE RECEPTOR EXPRESSION
Block Symposium
MON. 10:15 AM—BCC ROOM 324-326
CHAIR: L.R. Covey
COCHAIR: J.H. Bream


10:30  Alternatively spliced IL-4 protein is naturally secreted by T cells. A. Bocharov, V. Lockatell, S. Lavana, N.W. Todd, I.G. Luzina and S.P. Atamas. VAMC and Univ. of Maryland, Baltimore. (51.2)


11:00  A natural antagonist of human IL-23 inhibits the development and function of human Th17 cells. G. Gallagher and R. Yu. HUMIGEN LLC, the Inst. for Genet. Immunol. (51.4)


11:30  The cell-specific induction of CXCL9 by interferon (IFN)γ in CNS microglia is determined by the myeloid transcription factor PU.1. I. Campbell, S. Carter and V. Gysbers. Univ. of Sydney, Australia. (51.6)


12:00  Modulation of CD40L expression by polypyrimidine tract binding protein (PTB). R.A. Matus Nicodemos, S. Vavassori, J. Laughlin and L.R. Covey. Rutgers Univ., Univ. of Basel, Switzerland and PTC Therapeut. (51.8)
122. CD4 T CELL MEMORY AND TCR REPERTOIRE
Block Symposium
MON. 1:45 PM—BCC ROOM 321-323
CHAIR: D.L. Farber
COCHAIR: J. Gorski

1:45 Transcriptional control of rapid recall by memory CD4 T cells. W.W. Lai, M. Yu, F. Okoye, A.D. Keegan and D. Farber. Univ. of Maryland, Baltimore. (85.10)

2:00 Deciphering the function of the microRNA-181a in effector CD4+ T cells. M. Deng, M. Arias, M. Ramaswamy and R.M. Siegel. NIAMS, NIH. (85.19)


2:30 Bim regulates the entry of poorly functional and/or low avidity Th1 effector cells into the memory pool. M. Williams and D.C. Jay. Univ. of Utah. (85.15)

2:45 Comprehensive and semi-quantitative TCR repertoire analysis with a novel multiplex PCR method and 454 sequencing. J. Han, C. Wang, C.M. Sanders, Q. Yang, H. Schroeder, E. Wang, F. Babrzadeh, B. Gharizadeh, R. Myers, J. Hudson and R. Davis. HudsonAlpha Inst. of Biotechnology, Stanford Genome Ctr. And Univ. of Alabama at Birmingham. (85.3)

3:00 The CD4 memory T cell repertoire specific for a hemagglutinin influenza A virus peptide in DR1 individuals is clonotypically diverse. M. Tutaj and J. Gorski. BloodCenter of Wisconsin. (85.5)


123. HOST DEFENSE: INNATE IMMUNE CELLS AND PROTECTIVE IMMUNITY
Block Symposium
MON. 1:45 PM—BCC ROOM 316-317
CHAIR: E.O. Long
COCHAIR: C. Gowda

1:45 Enhancement of antiviral immunity by a peptide antagonist of SOCS. C.M. Ahmed, R. Dabelic and H.M. Johnson. Univ. of Florida. (89.9)


2:15 Neutrophil gelatinase-associated lipocalin (NGAL): Endogenous activators of the immune system. P. Tewary, C. Redmond, M. Clifton, D. Yang and J.J. Oppenheim. NCI, NIH, Rutgers, Fred Hutchinson Cancer Res. and SAIC Frederick. (89.15)

2:30 ATP induced microvesicles stimulate macrophage activation. L.M. Thomas and R.D. Salter. Univ. of Pittsburgh. (89.18)


3:00 Identification of novel ligand(s) for the NK cell receptor, KIR2DL4. M. Brusilovsky, A. Porgador and K.S. Campbell. Fox Chase Cancer Ctr. and Ben-Gurion Univ., Israel. (89.44)

3:15 Distinct Roles of Rab27a in lytic granule movement at the plasma membrane and in the cytosol. D. Liu, T. Meckel and E.O. Long. NIAID, NIH. (89.47)

3:30 Protein-DNA complex is the major malaria parasite component that activates dendritic cells. X. Wu, N.M. Gowda, S. Kumar and C. Gowda. Penn State Univ. Col. of Med. (89.60)
124. REGULATION OF DENDRITIC CELLS AND MYELOID SUPPRESSOR CELLS
Block Symposium
MON. 1:45 PM—BCC ROOM 307
CHAIR: S. Kovats
COCHAIR: P.A. Morel

1:45 Adenosine promotes de novo generation of Th17 cells via the dendritic cell A2B adenosine receptor. J.M. Wilson, S.G. Black, J. Linden and P.B. Ernst. Univ. of Virginia and La Jolla Inst. for Allergy & Immunol. (98.7)


2:15 Administration of dendritic cells signaled via the neurokinin 1 receptor favors type-1 cellular immunity by mechanisms involving exogenous and endogenous dendritic cell populations. B.M. Janelsins, A.R. Mathers, O.A. Tkacheva, G. Erdos, W.J. Shufesky, A.E. Morelli and A.T. Larregina. Univ. of Pittsburgh Sch. of Med. (98.12)

2:30 SHP-1 is a central regulator of dendritic cell function. I. Ramachandran, W. Song and J. Levitt. Baylor Col. of Med. (98.3)

2:45 Abrogation of tolerance with Flt3L requires CD154 expression. P. Gurung and T.S. Griffith. Univ. of Iowa. (98.9)

3:00 Developing regulatory dendritic cells with the pregnancy estrogen estriol. D.C. Muth, C.L. Taylor, C.C. Whitacre, P.N. Boyaka and T.L. Papenfuss. Ohio State Univ. (98.11)

3:15 Regulatory function of myeloid-derived suppressor cells is restricted to inflammatory site. J.M. Haverkamp. And T.L. Ratliff. Purdue Univ. and Univ. of Iowa. (98.25)


148. HEMATOPOIESIS AND B CELL DEVELOPMENT IN MOUSE AND MAN
Block Symposium
TUE. 8:00 AM—BCC ROOM 321-323
CHAIR: K.J. Payne
COCHAIR: R. Pelayo

8:00 Cell intrinsic E47 is required for stem cell self-renewal and differentiation but is dispensable for short-term myeloid development. L. Borghesi, Q. Yang and B. Esplin. Univ. of Pittsburgh Sch. of Med. and Univ. of Oklahoma Hlth. Sci. Ctr. (36.2)

8:15 Regulation of hematopoietic stem cell quiescence by TXNIP. I. Choi, M. Jeong and S. Yoon. KRIBB, Republic of Korea. (36.1)


9:00 Molecular basis for loss of VH4-encoded pre-B cells in mutant rabbits. G.R. Robbins and K.L. Knight. Loyola Univ. Chicago. (36.7)


9:30 Developmental targets of IL-7 and Flt ligand in human B cell production. T. Milford, I. Baez, S. Dovat and K.J. Payne. Loma Linda Univ. and Univ. of Wisconsin, Madison. (36.8)

149. MOLECULAR REGULATION OF INFLAMMATORY DISEASES
Block Symposium
TUE. 8:00 AM—BCC ROOM 310
CHAIR: L.M. Bradley
COCHAIR: S.J. Turley


8:15 Resveratrol induces myeloid-derived suppressor cells (MDSCs) and down-regulates CXCR3+ T cell expression and NF-κB pathways by interleukin-4 (IL-4). L.J. Hofseth, R.L. Price, M. Nagarkatti and P.S. Nagarkatti. Univ. of South Carolina, Emory Univ. and South Carolina Col. of Pharmacy. (142.10)


8:45 Regulation of the Receptor Activator of NF-κB Ligand (RANKL)-induced activation of the alternative NF-κB pathways by interleukin-4 (IL-4). M. Yu, J.L. Morenom and A.D. Keegan. Univ. of Maryland, Baltimore and FDA. (142.8)


9:30 Regulation of the expression of cyclooxygenases and production of PGIs and PGEs in human coronary artery endothelial cells by curcumin. X. Tan, E.M. Poulouse, B. Zhu, D.J. Stechschulte and K.N. Dileepan. Univ. of Kansas Med. Ctr. (142.5)

9:45 Endotoxin tolerance represents a state of alternative polarization in mononuclear cells. O. Pena, D. Raj, J. Pistic, C.D. Fjell and R.E. Hancock. Univ. of British Columbia, Canada. (142.4)

150. REGULATION OF AUTOIMMUNE RESPONSES II
Block Symposium (Late-Breaking Abstracts)
TUE. 8:00 AM—BCC ROOM 307
CHAIR: P. Ohashi
COCHAIR: K. Tung

8:00 Regulation of dendritic cell function and autoimmunity by microRNA-155. E.F. Lind, D. Dissanayake and P.S. Ohashi. Ontario Cancer Inst., Canada and Univ. of Toronto, Canada. (83.29)


8:30 ST2 deficiency enhances the severity of Th1/Th-17 mediated inflammation. M.L. Lukic, V. Volarevic, E. Mensah-Brown and A. Shahin. Fac. of Med. and Hlth. Sci., UAE Univ., United Arab Emirates and Univ. of Kragujevac, Serbia. (83.27)

8:45 Th17 polarized cells from NOD mice following mycobacterial adjuvant immunotherapy delay type 1 diabetes development. E. Nikoopour, J. Schwartz, K. Huszarik, C. Sandrock, O. Kroughly, E. Lee-Chan and B. Singh. Univ. of Western Ontario, Canada and Roberts Res. Inst., Canada. (83.26)

9:00 15d-PGJ2 ameliorates collagen-induced arthritis by convergence of Th17 to induced-Tregs. M.H. Napimoga, V. Carregaro, S.M. Vieira, R. Grespan, J.S. Silva and F.Q. Cunha. Univ. of Uberaba, Brazil and Univ of São Paulo, Brazil. (83.1)

9:15 Ag specific T effector (TE), Ag specific Foxp3+ regulatory T cells (Treg), and immune complex (IC) interact in a special testicular microenvironment and promote disease progression in a new spontaneous autoimmune orchitis (EAO) model. K. Tung, A. Paul, H. Qiao, C. Grafer, J. Li, P. Pramoonjago, J. Sparks, B. Eui and W. Sun. Univ. of Virginia. (83.25)


151. TECHNOLOGICAL INNOVATIONS IN IMMUNOLOGY
Block Symposium
TUE. 8:00 AM—BCC ROOM 314
CHAIR: J.D. Powell
COCHAIR: R.H. Scheuermann


8:15 Automated determination of optimal microarray data processing. R.H. Scheuermann, Y. Kong, S. Wang, Y. Qian and M. McGee. Univ. of Texas Southwestern Med. Ctr. and Southern Methodist Univ. (144.11)

8:30 qQuantitative phosphoproteomic dissection of the role of Zap-70 in T cell signaling using mass spectrometry. A. Salomon, V. Nguyen and L. Cao. Brown Univ. (144.9)

8:45 Large scale T cell receptor repertoire sequencing of murine CD8+ T cells. A.S. Buntzman, B.G. Vincent, S.P. Steele, J. Walsh, T.B. Kepler and J.A. Frelinger. Univ. of North Carolina, Chapel Hill and Duke Univ. Sch. of Med. (144.5)

9:00 Selective activation of antigen-specific T cells by nanoparticles. Y. Lo, M. Edidin and J. Powell. Johns Hopkins Sch. of Med. and Johns Hopkins Univ. (144.22)


153. CELLULAR MECHANISMS OF IMMUNITY
Block Symposium (Late-Breaking Abstracts)
TUE. 10:15 AM—BCC ROOM 308
CHAIR: K.A. Hogquist
COCHAIR: D.L. Wiest

10:15 Hematopoietic stem and progenitor cell defects in the Ts65Dn mouse model of Down Syndrome: implications for the role of oxidative stress in immune dysfunction. L. Lorenzo, H. Chen, S. Clark, P. Yarowsky and M.S. Williams. Univ. of Maryland, Baltimore. (36.58)


11:00 Id3 is a critical mediator of lineage commitment and functional maturation of @™-T cells. S. Lee, J. Zuniga-Pflucker and D.L. Wiest. Fox Chase Cancer Ctr. and Univ. of Toronto, Canada. (36.63)

11:15 IL-10 interruption of dendritic cell (DC) differentiation during the monocyte-to-DC transition is associated with increased levels of LC3, mature autophagosome formation, and survival of monocyte-macrophage-like cells. F. Santiago-Schwarz, A. Valentino, C. Martin and C. DiMaio. Farmingdale State Col. (134.21)


11:45 CD23 dependent transcytosis of IgE and immune complex across the polarized human respiratory epithelial cells. X. Zhu, Z. Palaniyandi, Z. Li and D.H. Conrad. Univ. of Maryland and Virginia Commonwealth Univ. (141.2)

154. IMMUNE SYSTEM REGULATION
Block Symposium (Late-Breaking Abstracts)
TUE. 10:15 AM—BCC ROOM 307
CHAIR: D.H. Conrad
COCHAIR: D. Billadeau


11:00 An orexigenic hormone ghrelin enhances LPS-induced IL-10 production in human peripheral blood-derived macrophages. D. Baatar, J. Lee, M. Brill, A. Lustig, A. Carter and D.D. Taub. NIA, NIH. (138.12)


12:00 Signaling through kainate receptors enhances murine B cell proliferation and Ig production. N. Chaimowitz, J. Sturgill and D. Conrad. Virginia Commonwealth Univ. (138.17)

155. INITIATION OF AUTOIMMUNITY:
ENVIRONMENTAL TRIGGERS
Block Symposium
TUE. 10:15 AM—BCC ROOM 310
CHAIR: S. Bolland
COCHAIR: C.S. Via


11:30 Mucopolysaccharidosis IIIB, a lysosomal storage disease, triggers a pathogenic neuroautoimmune response. H. Fu, S. Killedar, J. DiRosario, P.G. Popovich and D.M. McCarty. Nationwide Children’s Hosp. and Ohio State Univ. (93.19)

11:45 An inducible antigen system to study endogenous CD8 T cell tolerance. E.R. Jellison, M.J. Turner and Lefrançois. Univ. of Connecticut Hlth. Ctr. (93.11)

12:00 CIKS/Act1 is required for collagen-induced arthritis. P. Pisitkun, E. Claudio, N. Ren, H. Wang, S. Bolland and U. Siebenlist. NIAID, NIH. (93.3)
156. INNATE AND ADAPTIVE IMMUNITY TO INFECTION
Block Symposium (Late-Breaking Abstracts)
TUE. 10:15 AM—BCC ROOM 309
CHAIR: D.A. Holowka
COCHAIR: D.J. Topham

10:15  IL-17 is critical for the generation of protective Th1 immunity against intracellular pathogens. Y. Lin, R. Gopal and S. Khader. Univ. of Pittsburgh. (45.1)


10:45  Long-term maintenance of protective memory CD8+ T cells in the absence of CD4+ T cells in mice vaccinated against Blastomyces dermatitidis. S.G. Nanjappa, E. Heninger, M. Wuthrich and B.S. Klein. Univ. of Wisconsin, Madison. (45.3)

11:00  Recycling endosomal membranes contribute to Toxoplasma gondii parasitophorous vacuole formation in mast cells. N.L. Smith, B.A. Butcher, E.Y. Denkers, B.A. Baird and D.A. Holowka. Cornell Univ. (45.4)

11:15  MviN mediates Francisella tularensis virulence through the inhibition of inflammasome activation. T.K. Ulland, B.W. Buchan, B.D. Jones, W.M. Nauseef and F.S. Sutterwala. Univ. of Iowa and VAMC. (45.5)

11:30  IRF3 is an integral component in the host defense against Pseudomonas aeruginosa lung infection in mice. T. Lin and S. Carrigan. Dalhousie Univ., Canada. (45.6)

11:45  Syngeneic bone marrow transplant increases IL-17 responses and susceptibility to respiratory syncytial virus infection. D.M. Lindell, M.P. White, A.A. Berlin and N.W. Lukacs. Seattle Childrens Res. Inst., Univ. of Washington and Univ. of Michigan. (45.7)

12:00  A unique population of tissue-memory CD4+ T cells in the airways after influenza infection that is dependent on the integrin VLA-1. D.J. Topham and T.J. Chapman. Univ. of Rochester. (45.8)

157. MECHANISMS OF DISEASE IN EXPERIMENTAL MODELS OF ALLERGY
Block Symposium
TUE. 10:15 AM—BCC ROOM 321-323
CHAIR: A.V. Fedulov
COCHAIR: N. Zimmermann


10:45  Notch ligand Delta-like 4 regulates development and pathogenesis of allergic airway responses by modulating IL-2 production and Th2 immunity. S. Jang, M. Schaller and N.W. Lukacs. Univ. of Michigan. (141.15)

11:00  IL-13 is required and sufficient for airway acidification in allergic airway inflammation. N. Zimmermann, M.E. Rothenberg and L.C. Kottyan. Cincinnati Children's Hosp. (141.16)


11:30  Airway epithelium response to IFN-© regulates allergic airway inflammation. C. Mitchell, K. Provost, N. Niu, R. Homer and L. Cohn. Yale Univ. (91.7)


12:00  Particulate allergens exacerbate allergic asthma via extended localization within lipid raft enriched compartments in mast cells. C. Jin, C.P. Shelburne, G. Li, E.N. Potts, K.J. Riebe, G.D. Sempowski, M.W. Foster and S.N. Abraham. Duke Univ. (141.19)